



## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.  
PCT/RU 2003/000553

## Box No. I Basis of the opinion

1. With regard to the language, this report is based on:
- ☐ the international application in the language in which it was filed
- ☐ a translation of the international application into \_\_\_\_\_, which is the language of a translation furnished for the purposes of:
- ☐ international search (Rules 12.3(a) and 23.1(b))
- ☐ publication of the international application (Rule 12.4(a))
- ☐ international preliminary examination (Rules 55.2(a) and/or 55.3(a))
2. With regard to the elements of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this opinion as "originally filed.")*:
3. ☒ the international application as originally filed/furnished
- ☒ the description:
- pages \_\_\_\_\_ 1-4 \_\_\_\_\_ as originally filed/furnished
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- ☒ the claims:
- pages \_\_\_\_\_ as originally filed/furnished
- pages\* \_\_\_\_\_ as amended (together with any statement) under Article 19
- pages\* \_\_\_\_\_ 5 \_\_\_\_\_ received by this Authority on 25 January 2006 (25.01.2006)
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- ☒ the drawings:
- pages \_\_\_\_\_ 1/2-2/2 \_\_\_\_\_ as originally filed/furnished
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- ☐ a sequence listing and/or any related table(s) see Supplemental Box Relating to Sequence Listing.
3. ☐ The amendments have resulted in the cancellation of:
- ☐ the description, pages \_\_\_\_\_
- ☐ the claims. Nos. \_\_\_\_\_
- ☐ the drawings, sheets/figs \_\_\_\_\_
- ☐ the sequence listing (specify): \_\_\_\_\_
- ☐ any table(s) related to the sequence listing (specify): \_\_\_\_\_
4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
- ☐ the description, pages \_\_\_\_\_
- ☐ the claims. Nos. \_\_\_\_\_
- ☐ the drawings, sheets/figs \_\_\_\_\_
- ☐ the sequence listing (specify): \_\_\_\_\_
- ☐ any table(s) related to the sequence listing (specify): \_\_\_\_\_

\* If item 4 applies, some or all of those sheets may be marked "superseded".

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Box No. V Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

## 1. Statement

Novelty (N)	Claims	<u>1</u>	YES
	Claims	<u></u>	NO
Inventive Step (IS)	Claims	<u>1</u>	YES
	Claims	<u></u>	NO
Industrial Applicability (IA)	Claims	<u>1</u>	YES
	Claims	<u></u>	NO

## 2. Citations and explanations (Rule 70.7):

The Examination Report has been prepared on the base of the Search Report, comprising the following documents:

D1 – JP 10305497 A, 17.11.1998;

D2 – US 4227356 A, 14.10.1980;

D3 – DE 2709025 A, 07.09.1978.

There is declared a sandwich panel.

The sandwich panel, which is known from D1 (see Abstract and Figure 6), is the closest analogue with respect to the invention, which is declared in accordance with the independent claim of the invention. The known panel includes:

- the skins, which are connected with placed between said skins zigzag corrugated aggregate, having the alternating protrusions and recesses with the use of adhesive composite material;

- a corrugated layer, which has perforation holes, that are intended for the adhesive material penetration into the holes.

The declared invention differs from the invention, which is known from D1, in that:

- slanting ridges of the corrugated aggregate are connected between one another along the protrusions and recesses zigzag lines by means of curvilinear parts, whose radius is less than the core material thickness;

- the line perforation is made in such a manner, that it provides with the penetration of the adhesive material into holes of the perforation in the course of core-skins assembling.

Therefore, Claims meet the criterion of novelty.

The features: “the line perforation is made in such a manner, that it provides with the penetration of the adhesive material into holes of the perforation in the course of core-skins assembling” are known from D2 (see lines 1 to 14 of column 4 and Figures 3 and 4) and from D3 (see paragraph 4 in page 8 and drawing) and they provide a glueing of the layers in the course of assembling. However, the features: “slanting ridges of the corrugated aggregate are connected between one another along the protrusions and recesses zigzag lines by means of curvilinear parts, whose radius is less than the core material thickness” are not known from D2 and D3, and these features are not obvious ones in order to obtain the technical result, consisting in an “improvement the specific weight efficiency of the panel by means of the core material and adhesive material weight reduction”, therefore, the declared invention meets the criterion of inventive step.

The declared invention meets the criterion of industrial applicability.

**Claims**

A sandwich panel including the skins connected with placed between said skins zigzag corrugated core having the alternating protrusions and recesses with the use of adhesive composite material is characterized by that the plane slanting ridges are connected in-between along the protrusions and recesses zigzag lines by means of curvilinear parts whose radius is not less than the core material thickness and a line perforation is made along said parts so that to provide the adhesive material penetration into the holes of the perforation in the course of core-skins assembling.

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